

Docket No. AUS920010082US1

CLAIMS:

What is claimed is:

- 5 1. A method in a data processing system for accessing a client service, the method comprising:
- managing a pool of connections to the client service;
- responsive to a request from a user application from
- 10 a plurality of user applications, assigning a client service from the pool of client service instances;
- invoking the request on the client; and
- responsive to receiving a response from the client service, returning the result to the user application.
- 15 2. The method of claim 1 further comprising:
- freeing the client service back to the pool after invoking the request on the client service.
- 20 3. The method of claim 1 further comprising:
- waiting for the response from the client service after the client service has been invoked; and
- responsive to a timeout occurring while waiting for the response, returning a response to the user indicating
- 25 that the timeout has occurred.
4. The method of claim 1, wherein the user application is a client application.
- 30 5. The method of claim 1, wherein the client service is an application programming interface to a server process.
6. The method of claim 5, wherein the server process is

Docket No. AUS920010082US1

located on a remote data processing system.

7. The method of claim 1, wherein the pool of client services is used to access report services on a server.

5

8. The method of claim 1, wherein the response is returned immediately upon receiving the response.

9. The method of claim 1, wherein a error message is returned to the user application after a period of time passes without receiving the response.

10

10. The method of claim 1 further comprising:
placing the request in a queue if there are no free client services within the pool of client services.

15

11. The method of claim 1, wherein a particular client service instance only accepts and processes one request at a time.

20

12. The method of claim 10, wherein the server service is located on a remote data processing system.

25

13. A method in a data processing system for accessing a client service, the method comprising:

receiving requests for the client service, wherein the client service is a single-threaded process;
queuing a new request if a current request has been invoked on the client service;

30

responsive to receiving a response to the current request from the client service, returning the result to a requestor of the current request; and
invoking the new request on the client service.

Docket No. AUS920010082US1

14. The method of claim 13, wherein requests are sent to the client service form the queue in a first-in-first-out basis.

5

15. The method of claim 13, wherein the client service is used to access a server process in a server.

16. The method of claim 13, wherein the client service
10 is an application programming interface to a server process.

17. A data processing system comprising:
a bus system;
15 a communications unit connected to the bus system;
a memory connected to the bus system, wherein the memory includes as set of instructions; and
a processing unit connected to the bus system,
wherein the processing unit executes the set of
20 instructions to manage a pool of connections to the client service; assign a connection from the pool of connections to the client service in response to a request from a client from a plurality of clients; invoke the request on the client service using the connection;
25 and return the result to the user in response to receiving a response from the client service.

18. A data processing system comprising:
a bus system;
30 a communications unit connected to the bus system;
a memory connected to the bus system, wherein the memory includes as set of instructions; and
a processing unit connected to the bus system,

Docket No. AUS920010082US1

wherein the processing unit executes the set of instructions to receive requests for the client service, wherein the client service is a single-threaded process; queue a new request if a current request has been invoked
5 on the client service; return the result to a requestor of the current request in response to receiving a response to the current request from the client service; and invoke the new request on the client service.

- 10 19. A data processing system for accessing a client service, the data processing system comprising:

managing means for managing a pool of connections to the client service;

- 15 assigning means, responsive to a request from a user application from a plurality of user applications, for assigning a client service from the pool of client service instances;

invoking means for invoking the request on the client; and

- 20 returning means, responsive to receiving a response from the client service, for returning the result to the user application.

- 25 20. The data processing system of claim 19 further comprising:

freeing means for freeing the client service back to the pool after invoking the request on the client service.

- 30 21. The data processing system of claim 19 further comprising:

waiting means for waiting for the response from the client service after the client service has been invoked;

Docket No. AUS920010082US1

and

responsive to a timeout occurring while waiting for the response, returning a response to the user indicating that the timeout has occurred.

5

22. The data processing system of claim 19, wherein the user application is a client application.

23. The data processing system of claim 19, wherein the
10 client service is an application programming interface to a server process.

24. The data processing system of claim 23, wherein the
15 server process is located on a remote data processing system.

25. The data processing system of claim 19, wherein the
20 pool of client services is used to access report services on a server.

26. The data processing system of claim 19, wherein the
response is returned immediately upon receiving the
response.

25 27. The data processing system of claim 19, wherein a
error message is returned to the user application after a
period of time passes without receiving the response.

28. The data processing system of claim 19 further
30 comprising:

placing means for placing the request in a queue if
there are no free client services within the pool of
client services.

2025-10-29 14:09:50

Docket No. AUS920010082US1

29. The data processing system of claim 19, wherein a particular client service instance only accepts and processes one request at a time.

5

30. The data processing system of claim 27, wherein the server service is located on a remote data processing system.

10 31. A data processing system for accessing a client service, the data processing system comprising:

receiving means for receiving requests for the client service, wherein the client service is a single-threaded process;

15 queuing means for queuing a new request if a current request has been invoked on the client service;

returning means, responsive to receiving a response to the current request from the client service, for returning the result to a requestor of the current

20 request; and

invoking means for invoking the new request on the client service.

32. The data processing system of claim 31, wherein requests are sent to the client service from the queue in a first-in-first-out basis.

33. The data processing system of claim 30, wherein the client service is used to access a server process in a server.

34. The data processing system of claim 30, wherein the client service is an application programming interface to

100150-103590

1 2 3 4

[illegible]

5

```

    first instructions for managing a pool of
connections to the client service;

```

10

third instructions for invoking the request on the client; and

15

20

first instructions for receiving requests for the client service, wherein the client service is a single-threaded process;

25

third instructions, responsive to receiving a response to the current request from the client service, for returning the result to a requestor of the current request; and

30

fourth instructions for invoking the new request on the client service.